PELICAN BAY SERVICES DIVISION
Municipal Services Taxing & Benefit Unit

NOTICE OF PUBLIC MEETING

FEBRUARY 19, 2019

THE WATER MANAGEMENT COMMITTEE OF THE PELICAN BAY SERVICES DIVISION WILL MEET AT 1:00 PM ON TUESDAY, FEBRUARY 19 AT THE PELICAN BAY SERVICES DIVISION, 3RD FLOOR OF THE SUNTRUST BUILDING, SUITE 302, LOCATED AT 801 LAUREL OAK DRIVE, NAPLES, FL 34108.

AGENDA

1. Pledge of Allegiance
2. Roll call
3. Agenda approval
4. Approval of 10/18/18 meeting minutes
5. Audience comments
6. Nutrient levels in non-potable water
   a. Report on nutrient levels – 4th quarter 2018
   b. Possible visit to North County Water Reclamation Facility
7. Grosvenor drainage improvements
8. Georgetown drainage improvements
9. Blue tilapia
10. Boat ramps
11. Adjournment

*indicates possible action items

ANY PERSON WISHING TO SPEAK ON AN AGENDA ITEM WILL RECEIVE UP TO THREE (3) MINUTES PER ITEM TO ADDRESS THE BOARD. THE BOARD WILL SOLICIT PUBLIC COMMENTS ON SUBJECTS NOT ON THIS AGENDA AND ANY PERSON WISHING TO SPEAK WILL RECEIVE UP TO THREE (3) MINUTES. THE BOARD ENCOURAGES YOU TO SUBMIT YOUR COMMENTS IN WRITING IN ADVANCE OF THE MEETING. ANY PERSON WHO DECIDES TO APPEAL A DECISION OF THIS BOARD WILL NEED A RECORD OF THE PROCEEDING PERTAINING THERETO, AND THEREFORE MAY NEED TO ENSURE THAT A VERBATIM RECORD IS MADE, WHICH INCLUDES THE TESTIMONY AND EVIDENCE UPON WHICH THE APPEAL IS TO BE BASED. IF YOU ARE A PERSON WITH A DISABILITY WHO NEEDS AN ACCOMMODATION IN ORDER TO PARTICIPATE IN THIS MEETING YOU ARE ENTITLED TO THE PROVISION OF CERTAIN ASSISTANCE. PLEASE CONTACT THE PELICAN BAY SERVICES DIVISION AT (239) 597-1749 OR VISIT PELICANBAYSERVICESDIVISION.NET.
PELICAN BAY SERVICES DIVISION
WATER MANAGEMENT COMMITTEE MEETING
OCTOBER 18, 2018

The Water Management Committee of the Pelican Bay Services Division met on Thursday, October 18 at 3:00 p.m. at the Community Center at Pelican Bay, 8960 Hammock Oak Dr., Naples, Florida 34108. The following members attended.

**Water Management Committee**
Tom Cravens, Chairman
Jacob Damouni
Mike Shepherd

**Pelican Bay Services Division Staff**
Neil Dorrill, Administrator (absent)
Marion Bolick, Operations Manager (absent)
Mary McCaughtry, Operations Analyst
Lisa Jacob, Associate Project Manager
Barbara Shea, Recording Secretary

**Also Present**
Joe Chicurel, PBSD Board
Rick Swider, PBSD Board

**APPROVED AGENDA (AS AMENDED)**

1. Pledge of Allegiance
2. Roll call
3. Agenda approval
4. Approval of 08/14/18 meeting minutes
5. Audience comments
6. OLS swale problem and potential solutions
7. Status of drainage problem between the Dorchester & the Grosvenor
8. Potential lake borders/modifications for the reduction of lake algae
9. Blue tilapia lakes
   a. Water quality testing (add-on)
   b. Mystique runoff (add-on)
   c. Aeration project bids received (add-on)
10. Adjournment

**ROLL CALL**
All members were present and a quorum was established

**AGENDA APPROVAL**
Mr. Shepherd motioned, Mr. Damouni seconded to approve the agenda as amended, with the addition of items #9a, #9b, and #9c. The motion carried unanimously.
APPROVAL OF 08/14/18 MEETING MINUTES

Mr. Shepherd motioned, Mr. Damouni seconded to approve the 08/14/18 meeting minutes as presented. The motion carried unanimously.

AUDIENCE COMMENTS

None.

OLS SWALE PROBLEM AND POTENTIAL SOLUTIONS

Mr. Cravens provided a brief background and description of the Oak Lake Sanctuary swale drainage issues. Ms. Jacob commented that an Oak Lake Sanctuary bleeder modification project to improve drainage and lower the level of the lake is currently out for bid. The committee chose to table further discussion on this issue, until the project is completed, and the results can be assessed.

STATUS OF DRAINAGE PROBLEM BETWEEN THE DORCHESTER & THE GROSVENOR

Mr. Cravens provided a brief description of the drainage issues in the grassy landscaped area between the Dorchester and the Grosvenor, for which the PBSD has a drainage easement. Ms. Jacob commented that our engineer AB&B has been tasked to develop a drainage improvement solution and has already begun surveying the pipes and drainage areas. The committee chose to table further discussion on this issue until a solution is proposed.

POTENTIAL LAKE BORDERS/MODIFICATIONS FOR THE REDUCTION OF LAKE ALGAE

Dr. Chicurel provided photos of the negative effects to our lakes from grass and weed-eater clippings. He suggested that the committee look at creating a border around each lake, as a method of preventing the clippings from entering the lakes. He noted that the community of Mediterra has 8 – 10 feet of lilies surrounding each lake. Mr. Cravens commented that litoral plants are expensive to install and labor intensive to maintain. Mr. Shepherd commented that our workers need to be reminded that clippings should never be tossed in the lakes.

Methods of algae reduction were discussed by the committee. Mr. Shepherd questioned whether individual lake owners could supplement PBSD algae suppression methods in our 45 lakes. After discussion, the committee agreed that owners should have this ability, providing that they were to obtain pre-approval from PBSD staff. The committee agreed that this issue should be discussed by the full PBSD Board.

Mr. Swider questioned what the cost would be to change over our irrigation water from reclaimed water to potable water. County reclaimed water contains nutrients which cause an increase in lake algae. The committee requested that staff investigate the feasibility and cost of replacing Pelican Bay recycled irrigation water with potable water.

BLUE TILAPIA LAKES

The committee reviewed photos of the 20 lakes where blue tilapia were installed in May 2018. Minimal algae was observed on the surface of these lakes. The committee discussed whether blue tilapia could cause an increase in the level of ammonia in the lakes.
The committee suggested that staff look at before and after (blue tilapia installation) ammonia levels in three lakes, as well as ammonia levels in three lakes where tilapia have never been installed.

Mr. Shepherd motioned, Mr. Damouni seconded to recommend to the full board that we expand the blue tilapia stocking to all 45 lakes. The motion carried unanimously.

WATER QUALITY TESTING (ADD-ON)
Not discussed.

MYSTIQUE RUNOFF (ADD-ON)
Ms. Jacob provided photos of the runoff from the Mystique construction site into the water management canal that runs along the berm. She commented that the County Pollution Control Division was contacted, and after a site visit, they requested that the condominium management team replace a catch basin filter and place some turbidity barriers in the swale along the berm.

Mr. Cravens and Mr. Shepherd commented on Mystique construction workers performing work before 7 a.m., while it is Pelican Bay Foundation general policy not to allow any construction work to begin prior to 7 a.m. Ms. Jacob will notify Mr. Laney (Pelican Bay Foundation) of these observations and will report back to the committee.

AERATION PROJECT BIDS RECEIVED (ADD-ON)
Ms. Jacob commented that two bids were received for our aeration repair project (Hurricane Irma damage), with Aquagenix being low bidder. Mr. Shepherd commented that Aquagenix is not a reliable vendor (based on our past experience with this vendor) and that this vendor should be excluded from consideration.

ADJOURNMENT
The meeting was adjourned at 4:13 p.m.

Tom Cravens, Chairman

Minutes approved [ ] as presented OR [ ] as amended ON __________________ date
Good Day,

The Collier County Wastewater Department would like to assist our customers in reducing the cost and environmental impacts of fertilizer application. To assist you, we are providing quarterly reminders of our nitrogen and phosphorus concentrations in the reclaimed water to allow for adjustments in your fertilizer application.

Below are the 4th quarter results from each of our treatment plants.

<table>
<thead>
<tr>
<th>4th quarter 2018 averages</th>
<th>Total Nitrogen (mg/L)</th>
<th>Total Phosphorus (mg/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCWRF</td>
<td>9.9</td>
<td>1.3</td>
</tr>
<tr>
<td>NCWRF</td>
<td>10.2</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Rob Kaine
Manager, IQ

Inground Services Division

Note: Email Address Has Changed to:
orobert.kaine@colliercountyfl.gov

4370 Mercantile Avenue, Naples, FL 34104
Phone: 239-252-6251  Cell: 239-825-5246

Under Florida Law, e-mail addresses are public records. If you do not want your e-mail address released in response to a public records request, do not send electronic mail to this entity. Instead, contact this office by telephone or in writing.
Hi Marion,

Based on our phone conversation today I wanted to re-iterate a few of the major points of our discussion.

- Florida Department of Environmental Protection does not consider the basin in Pelican Bay to be impaired for Ammonia. WBID 3278C1 (CLAM BAY)
- Ammonia comes from a variety of sources. Fertilizers, decomposition, and atmospheric deposition are a few examples. LINK [https://www.epa.gov/wqc/aquatic-life-criteria-ammonia](https://www.epa.gov/wqc/aquatic-life-criteria-ammonia)
- Toxicity of ammonia is pH and temperature dependent.

Please let me know if you need anything else.

Geoff Rosenaw

Senior Environmental Specialist
3339 Tamiami Trail East Suite 304
Naples, FL 34112

Work: (239) 252-7806
Lab: (239) 252-5008
Cell: (239) 300-1685
Email: Geoffrey_Rosenaw@colliercountyfl.gov

Collier County™
POLLUTION CONTROL
LIVE GREEN. SAVE BLUE.
# Pelican Bay Lake Ammonia Levels

## Lakes with Blue Tilapia

<table>
<thead>
<tr>
<th></th>
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<td>0.063</td>
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<td>0.022</td>
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<td>0.168</td>
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<td>0.074</td>
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<td>0.027</td>
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<td>0.023</td>
<td>0.010</td>
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<td>0.031</td>
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<tr>
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<td>0.011</td>
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<td>n/a</td>
<td>0.010</td>
<td>0.010</td>
<td>0.137</td>
<td>0.122</td>
</tr>
</tbody>
</table>

## Sample Lakes Without Blue Tilapia

| 1     | 4    | 0.078     | 0.080     | 0.010     | 0.061      | 0.135     | 0.127     | 0.010      | 0.019     | 0.192     | 0.052   |
| 1     | 6    | 0.081     | 0.012     | 0.042     | 0.055      | 0.071     | 0.104     | 0.010      | 0.024     | 0.168     | 0.074   |
| 3     | 4    | 0.145     | 0.019     | 0.010     | 0.242      | 0.036     | 0.032     | 0.084      | 0.085     | 0.271     | 0.032   |
| 5     | 5    | 0.010     | 0.022     | 0.010     | 0.032      | 0.011     | n/a       | 0.010      | 0.010     | 0.040     | 0.072   |
| RC    |      | 0.060     | 0.156     | 0.127     | 0.157      | 0.143     | 0.187     | 2.136      | 0.010     | 0.477     | 0.166   |

***Yellow highlighted areas are when lakes had Blue Tilapia
*** RC is reclaimed water sample